

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~striketrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claim 1 in accordance with the following:

1. (Currently Amended) A multi-layer structure comprising:
a substrate;~~and~~
a transformation layer comprising a metal oxide layer formed on the substrate,
wherein a volume of a portion of the transformation layer irradiated by a laser beam spot expands when a temperature of the portion exceeds a predetermined temperature; and
a pit pattern formed on an outmost surface of the multi-layer structure, ~~thus forming a pit pattern on an upper surface of the transformation layer~~, the pit pattern having a diameter smaller than a diameter of the laser beam spot.
2. (Original) The multi-layer structure of claim 1, wherein the substrate is made from glass (SiO₂) or polycarbonate.
- 3-10. (Cancelled)
11. (Previously Presented) The multi-layer structure of claim 1, wherein the metal oxide layer contains a transition metal or a noble metal.
12. (Previously Presented) The multi-layer structure of claim 1, wherein the metal oxide layer is made from a material whose volume changes by releasing oxygen when heated.
13. (Previously Presented) The multi-layer structure of claim 1, wherein the transformation layer further comprises a dielectric layer sandwiched between the substrate and the metal oxide layer.

14. (Original) The multi-layer structure of claim 13, wherein the dielectric layer is made from ZnS-SiO₂

15. (Previously Presented) The multi-layer structure of claim 13, wherein the metal oxide layer is made of tungsten oxide.

16. (Original) The multi-layer structure of claim 13, wherein the metal oxide layer has a thickness of about 80 nm.

17-27. (Cancelled)

28. (Original) The multi-layer structure of claim 1, wherein the transformation layer comprises:

- a first dielectric layer formed on the substrate;
- a metal oxide layer overlying the first dielectric layer; and
- a second dielectric layer overlying the metal oxide layer.

29. (Original) The multi-layer structure of claim 28, wherein the metal oxide layer contains a transition metal or a noble metal.

30. (Previously Presented) The multi-layer structure of claim 29, wherein the noble metal is one of platinum oxide, silver oxide, palladium oxide, and tungsten oxide.

31. (Original) The multi-layer structure of claim 28, wherein the metal oxide layer is made from a material whose volume changes by releasing oxygen when heated.

32-70. (Cancelled)